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\*Practice Limited to
Federal Agencies

June 9, 2004

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Art Unit 1634

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Re:

U.S. Utility Patent Application

Appl. No. 10/655,579; Filed: September 5, 2003

For: Compositions and Methods for Synthesizing Nucleic Acids

Inventors: PA

PARK et al.

Our Ref:

0942.5580002/RWE/BJD/JKM

Sir:

Transmitted herewith for appropriate action are the following documents:

- 1. Information Disclosure Statement;
- 2. List of cited references on Form PTO-1449 (19 sheets);
- 3. A copy of each reference cited on Form PTO-1449 (80 documents: AL1-AP1, AR1-AT1, AL2-AP2, AR2-AT2, AL3-AP3, AR3-AT3, AL4-AP4, AR4-AT4, AL5-AN5 and AR5-AT19); and
- 4. One (1) return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents June 9, 2004 Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Brian J. Del Buono Attorney for Applicants Registration No. 42,473

BJD/JKM:bac Enclosures

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#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Park et al.

Appl. No. 10/655,579

Filed: September 5, 2003

For: Compositions and Methods for

Synthesizing Nucleic Acids

Confirmation No. 6419

Art Unit:

1634

Examiner:

To be assigned

Atty. Docket: 0942.5580002/BJD/JKM

#### **Information Disclosure Statement**

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450 Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Copies of documents AA1-AK1, AA2-AK2 and AA3-AD3 are not provided in accordance with the U.S. Patent and Trademark Office pre-OG notice of July 11, 2003, which states "[t]he Office hereby waives the requirement under 37 CFR 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003."

In accordance with 37 C.F.R. § 1.98(a)(3), Applicants' undersigned representative submits the following, in regards to non-English language document AL4 cited on Form PTO 1449:

Document AL4, PCT Patent Publication No. WO 93/01288, is in the German language. An English language abstract of document AL4 appears on the front page of the document.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached Form PTO-1449 based on information presently available to the

undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed Form PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Brian J. Del Buono Attorney for Applicants Registration No. 42,473

Date: <u>June 9, 2004</u> 1100 New York Avenue, N.W. Washington, D.C. 20005-3934 (202) 371-2600

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FORM PTO-1449 JUN U 9 20
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO. 0942.5580002/BJD/JKM

FIRST NAMED INVENTOR Park et al.

**FILING DATE** September 5, 2003 APPLICATION NO. 10/655,579

Page 1 of 19

**ART UNIT** 

1634

			U.S. PATE	NT DOCUMENTS	_		
	DO	CUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
AA1	4,6	83,195	07/28/1987	Mullis et al.			02/07/1986
AB1	4,6	83,202	07/28/1987	Mullis			10/25/1985
AC1	4,8	00,159	01/24/1989	Mullis et al.			12/17/1986
AD1	4,8	89,818	12/26/1989	Gelfand et al.			06/17/1987
AE1	4,9	65,188	10/23/1990	Mullis et al.			06/17/1987
AF1	5,0	47,342	09/10/1991	Chatterjee			08/10/1989
AG1	5,0	79,352	01/07/1992	Gelfand et al.			05/15/1990
AH1	5,2	23,409	06/29/1993	Ladner et al.			03/01/1991
Al1	5,2	44,797	09/14/1993	Kotewicz et al.			03/18/1991
AJ1	5,2	70,179	12/14/1993	Chatterjee			01/28/1992
AK1	5,3	38,671	08/16/1994	Scalice et al.			10/07/1992
•		F	OREIGN PAT	TENT DOCUMENTS			
	DO	CUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
AL1	EP	0 329 822	06/08/1994	Europe			Ye N
AM1	EP	0 684 315	06/26/2002	Europe			Ye N
AN1	wo	O 89/06691	07/27/1989	WIPO			Ye N
AO1	wo	0 90/02809	03/22/1990	WIPO			Ye N
AP1	w	O 91/09944	07/11/1991	WIPO			Ye: No
OTHER (Include			ing Author,	Title, Date, Pertinent Pages	, etc.)		
Alani, E., et al., "Characterization of DNA-binding and Strand-exchange Stimule							
AS	<u>1</u>	Barbas III, C.F., et al., "Assembly of combinatorial antibody libraries on phage surfaces gene III site," <i>Proc. Natl. Acad. Sci. 88</i> :7978-7982, National Academy of Sciences (199					
АТ	1	Barnes, W.M., "The fidelity of <i>Taq</i> polymerase catalyzing PCR is improved by an N-terminal deletion," <i>Gene 112</i> :29-35, Elsevier Science B.V. (1992).					
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	AB1 AC1 AD1 AE1 AF1 AG1 AH1 AJ1 AK1 AL1 AM1 AN1 AO1 AP1  AR	AA1 4,6 AB1 4,6 AB1 4,8 AC1 4,8 AD1 4,8 AE1 4,9 AF1 5,0 AG1 5,0 AH1 5,2 AH1 5,2 AH1 5,3  AK1 5,3  AK1 EP AM1 EP AM1 EP AM1 WC AP1 WC  AR 1  AR 1  AR 1	AB1 4,683,202  AC1 4,800,159  AD1 4,889,818  AE1 4,965,188  AF1 5,047,342  AG1 5,079,352  AH1 5,223,409  AI1 5,270,179  AK1 5,338,671  F  DOCUMENT NUMBER  AL1 EP 0 329 822  AM1 EP 0 684 315  AN1 WO 89/06691  AO1 WO 90/02809  AP1 WO 91/09944  OTHER (Included Alani, E., et al., "Properties of y-Facademic Press  AS 1 Barbas III, C.F., gene III site," Properties of y-Facademic Press  AT 1 Barnes, W.M., "The state of y-Facademic Press	DOCUMENT NUMBER DATE  AA1	AA1 4,683,195 07/28/1987 Mullis et al.  AB1 4,683,202 07/28/1987 Mullis  AC1 4,800,159 01/24/1989 Mullis et al.  AD1 4,889,818 12/26/1989 Gelfand et al.  AE1 4,965,188 10/23/1990 Mullis et al.  AF1 5,047,342 09/10/1991 Chatterjee  AG1 5,079,352 01/07/1992 Gelfand et al.  AH1 5,223,409 06/29/1993 Ladner et al.  AI1 5,244,797 09/14/1993 Kotewicz et al.  AJ1 5,270,179 12/14/1993 Chatterjee  AK1 5,338,671 08/16/1994 Scalice et al.  FOREIGN PATENT DOCUMENTS  DOCUMENT NUMBER DATE COUNTRY  EP 0 329 822 06/08/1994 Europe  AM1 EP 0 684 315 06/26/2002 Europe  AM1 WO 89/06691 07/27/1989 WIPO  AO1 WO 90/02809 03/22/1990 WIPO  AP1 WO 91/09944 07/11/1991 WIPO  OTHER (Including Author, Title, Date, Pertinent Pages, Properties of y-RPA, a Yeast Single-strand-DNA-binding Pacademic Press Ltd. (1992).  AS 1 Barbas III, C.F., et al., "Assembly of combinatorial antibody gene III site," Proc. Natl. Acad. Sci. 88:7978-7982, National	DOCUMENT NUMBER   DATE   NAME   CLASS	DOCUMENT NUMBER   DATE   NAME   CLASS   SUB-CLASS

**EXAMINER** DATE CONSIDERED

		Page 2 of 19
	ATTY, DOCKET NO.	APPLICATION NO.
	0942.5580002/BJD/JKM	10/655,579
FORM PTO-1449	FIRST NAMED INVENTOR	
W. CO. L. T. C. L. D. C. L. C.	Park et al.	
INFORMATION DISCLOSURE STATEMENT	FILING DATE	ART UNIT
	September 5, 2003	1634

	- <sub>1</sub>			U.S. PATE	NT DOCUMENTS			
EXAMINER INITIAL		DOG	CUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA2	5,3	74,553	12/20/1994	Gelfand et al.			08/13/1990
	AB2	5,4	09,818	04/25/1995	Davey et al.			06/24/1988
	AC2	5,4	36,149	07/25/1995	Barnes			02/19/1993
	AD2	5,4	49,603	09/12/1995	Nielson et al.			10/24/1989
	AE2	5,4	55,166	10/03/1995	Walker			01/09/1992
	AF2	5,5	12,462	04/30/1996	Cheng			02/25/1994
	AG2	5,5	32,600	07/02/1996	Hoshino			10/27/1994
-	AH2	5,6	05,824	02/25/1997	Nielson et al.			06/16/1993
	Al2	5,6	14,365	03/25/1997	Tabor et al.		-	11/10/1994
	AJ2	5,6	46,019	07/08/1997	Nielson et al.			04/07/1994
	AK2	5,5	87,287	12/24/1996	Scalice et al.			04/07/1994
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EXAMINER INITIAL		DOC	CUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL2	wo	91/09950	7/11/1991	WIPO			Yes No
	AM2	wo	91/17271	11/14/1991	WIPO			Yes No
	AN2	WO 92/01047		01/23/1992	WIPO			Yes No
	AO2	2 WO 92/03556		03/05/1992	WIPO			Yes No
	AP2	wo	D 92/06188	04/16/1992	WIPO			Yes No
	OTHER (Include			ing Author.	Title, Date, Pertinent Pages	etc.)	1	
	Barns, S.M., et al., "Perspectives on archaeal diversity, thermophily and monophyly environmental rRNA sequences," <i>Proc. Natl. Acad. Sci.</i> 93:9188–9193, National Acad. Sciences (1996).							hyly from at Academy of
	AS	<u>2</u>	Brown, J.P., et al., "Structural Characterization of Human Melanoma-Associated with Monoclonal Antibodies," <i>J. Immunol.</i> 127:539-546, American Association of Immunologists (1981).					
	АТ	2	Brown, J.P., et al., "Protein Antigens of Normal and Malignant Human Cells Identified Immunoprecipitation with Monoclonal Antibodies," <i>J. Biol. Chem. 255</i> :4980-4983, Ams Society of Biological Chemists (1980).					
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EXAMINER INITIAL		DO	CUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA3	5,6	605,824	02/25/1997	Nielson et al.			06/16/1993
	AB3	5,7	73,257	06/30/1998	Nielson et al.			06/06/1995
	AC3	5,9	72,650	10/26/1999	Yao			06/26/1997
	AD3	6,0	77,664	06/20/2000	Slater et al.			05/31/1996
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	AL3	w	O 92/06200	04/16/1992	WIPO			Yes No
	AM3	w	O 92/09690	06/11/1992	WIPO			Yes No
	AN3	w	O 92/15679	09/17/1992	WIPO			Yes No
	AO3	w	O 92/18619	10/29/1992	WIPO			Yes No
	AP3	w	O 92/20791	11/26/1992	WIPO			Yes No
			OTHER (Includ	ing Author,	Title, Date, Pertinent Pages	, etc.)		
	AR	<u>3</u>			ologs of replication protein A roteins," <i>Trends Biochem. So</i>			
	AS	3	Chou, Q., "Minimizing deletion mutagenesis artifact during <i>Taq</i> DNA polymerase PCR coli SSB," <i>Nucl. Acids Res. 20</i> :4371, IRL Press (1992).					
	AT	3	Chou, Q., et al., "Prevention of pre-PCR mis-priming and primer dimerization impropy-number amplifications," <i>Nucl. Acids Res. 20:</i> 1717-1723, Oxford University F (1992).					
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ATTY, DOCKET NO.	APPLICATION NO.
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	AL4	wo	0 93/01288	01/21/1993	WIPO			×	Yes No
	AM4	wo	94/26766	11/24/1994	WIPO				Yes No
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	AO4	w	97/09451	03/13/1997	WIPO			•	Yes No
	AP4	w	98/47912	10/29/1998	WIPO				Yes No
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	AR	4	Clackson, T., et 352:624-628, Ma		antibody fragments using pha (1991).	ige displa	y libraries," <i>l</i>	Nature	
	AS	4		ole, S.P.C., et al., "The EBV-Hybridoma Technique and Its Application to Human Lung ancer," Monoclonal Antibodies and Cancer Therapy 77-96, Alan R. Liss, Inc. (1985).					
	AT	<u>4</u>	His-Tagged SSB	Dabrowski, S., and Kur, J., "Cloning, Overexpression, and Purification of the Recombinant His-Tagged SSB Protein of Escherichia coli and Use in Polymerase Chain Reaction Amplification," <i>Protein Expr. Purif.</i> 16:96-102, Academic Press (1999).					
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	AL5		O 00/52027	09/08/2000	WIPO			Yes No	
	AM5	w	O 01/02559	01/11/2001	WIPO			Yes No	
	AN5	w	O 02/19822	03/14/2002	WIPO			Yes No	
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	AR §	5	Ewing, B., et al.,	"Base-Calling	Title, Date, Pertine g of Automated Seq 8:175-185, Cold Spr	quencer Traces U	sing <i>Phred.</i> I. atory Press (	Accuracy 1998).	
	AS §	<u>5</u>	Ewing, B., et al., Probablilities," G	Ewing, B., et al., "Base-Calling of Automated Sequencer Traces Using <i>Phred.</i> II. Error Probablilities," <i>Genome Res. 8</i> :186-194, Cold Spring Harbor Laboratory Press (1998).					
	AT §	5	Flaman, J-M., et al., "A rapid PCD fidelity assay," Nucl. Acids Res. 22:3259-3260, Oxford University Press (1994).					0, Oxford	
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		Page 6 of 19
	ATTY. DOCKET NO.	APPLICATION NO.
	0942.5580002/BJD/JKM	10/655,579
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-	Park et al.	
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	AS	<u>6</u>	Fuchs, P., et al., "Targeting Recombinant Antibodies to the Surface of Escherich Fusion to a Peptidoglycan Associated Lipoprotein," <i>Bio/Technology</i> 9:1369-1372 America Inc. (1991).					
	AT	6			es to major histocomp 2, Macmillan Ltd. (197		oduced by hy	/brid cell
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ATTY. DOCKET NO.	APPLICATION NO.
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	AR	Z	Garrard, L.J., et Bio/Technology	<i>al.</i> , "F <sub>AB</sub> As 9:1373-137	ssembly and Enrichme 77, Nature America Ind	ent in a Monovalen c. (1991).	t Phage Disp	olay System,	
	AS	Z		Gefter, M.L., et al., "A Simple Method for Polyehylene Glycol-Promoted Hybridization of Mouse Myeloma Cells," Somatic Cell Genet. 3:231-236, Plenum Publishing Corp. (1977).					
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	AN							Yes No
	AO							Yes No
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	AR	8	to Single-strande Template," <i>J. Bio</i>	OTHER (Including Author, Title, Date, Pertinent Pages, etc.)  Glover, B.P., and McHenry, C.S., "The χψ Subunits of DNA Polymerase III Holoenzyme Bind to Single-stranded DNA-binding Protein (SSB) and Facilitate Replication of an SSB-coated Template," <i>J. Biol. Chem.</i> 273:23476-23484, The American Society for Biochemistry and Molecular Biology, Inc. (1998).				
	AS	<u>8</u>	combinatorial im	Gram, H., et al., "In vitro selection and affinity maturation of antibodies from a naïve combinatorial immunoglobulin library," <i>Proc. Natl. Acad. Sci. 89</i> :3576-3580, National Academy of Sciences (1992).				
	AT	<u>8</u>		Griffiths, A.D., et al., "Human anti-self antibodies with high specificity from phage display libraries," <i>EMBO J.</i> 12:725-734, Oxford University Press (1993).				
EXAMINER	·		····			DATE CO	NSIDERED	

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ATTY. DOCKET NO.	APPLICATION NO.
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FIRST NAMED INVENTOR	
Park et al.	
FILING DATE	ART UNIT
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U.S. PATENT DOCUMENTS									
EXAMINER INITIAL		DC	CUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE	
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	AN							Yes No	
	AO							Yes No	
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